PARTIAL TRANSLATION OF JAPANESE UNEXAMINED PATENT PUBLICATION (KOKAI) No. 2001-179040

Title of the Invention: Apparatus of decomposing gas
Application No.: 11(1999)-365688
Filing Date: December 22, 1999
Inventors: Tadao KAWAMURA, and three others
Applicant: Matsushita Electric Works Ltd.
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[Claims]
[Claim 1]

An apparatus of decomposing gas, comprising a discharge electrode, a counter electrode having a face portion opposed to said discharge electrode, and adsorbent for adsorbing a toxic gas, wherein said adsorbent is arranged on said discharge electrode or said face portion on the counter electrode, and a gas-decomposing portion for generating a discharge is formed between said discharge electrode and said face portion of the counter electrode.

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[Claim 5]

The apparatus according to any one of claims 1 to 4, wherein the adsorbent is formed from at least one substance selected from inorganic substance such as fuller's earth, activated clay, zeolite, silica gel, or ion exchanger, activated carbon, organic substance such as bone charcoal, or metallic substance such as metal oxide such as titanium oxide, zinc oxide, or aluminum oxide.

[Claim 6]

The apparatus according to any one of claims 1 to 5, wherein an oxidation catalyst is arranged in the adsorbent so that it is exposed partially from the adsorbent.

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[Claim 8]

The apparatus according to claim 6 or 7, wherein the oxidation catalyst is formed from at least one substance selected from iron oxide, nickel oxide, chromium oxide, zinc oxide, manganese oxide, platinum, or palladium.

[Claim 9]

An apparatus of decomposing gas, comprising a discharge electrode, a counter electrode having a face portion opposed to

said discharge electrode, and an oxidation catalyst for oxidative destruction of a toxic gas, wherein said oxidation catalyst is arranged on said face portion on the counter electrode, and a gas-decomposing portion for generating a discharge is formed between said discharge electrode and said face portion of the counter electrode.

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[Brief Explanation of Drawings]

[Fig. 1]

A schematic view of one embodiment according to the present invention.

[Fig. 2]

A schematic view of another embodiment according to the present invention.

[Fig. 3]

A schematic view of still another embodiment according to the present invention.

[Fig. 4]

A schematic view of still another embodiment according to the present invention.

[Fig. 5]

A schematic view of still another embodiment according to the present invention.

[Fig. 6]

A schematic view of still another embodiment according to the present invention.

[Fig. 7]

A schematic view of still another embodiment according to the present invention.

[Fig. 8]

A schematic view of still another embodiment according to the present invention.

[Fig. 9]

A schematic view of still another embodiment according to the present invention.

[Fig. 10]

A schematic view of still another embodiment according to the present invention.

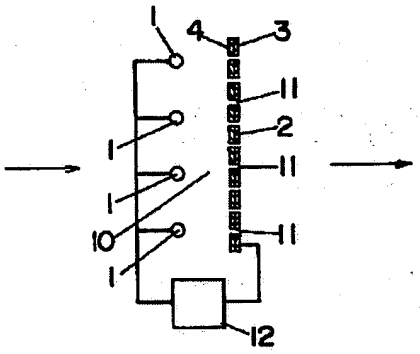
[Explanation of Reference Numbers]

1 ··· discharge electrode; 2 ··· face portion;
3 ··· counter electrode; 4 ··· adsorbent;
5 ··· insulating layer; 6 ··· oxidation catalyst;

10 ··· gas-decomposing portion.

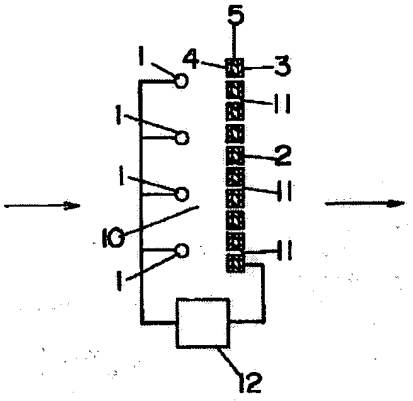
[Translator's supplement]
11 ··· through-hole; 12 ··· high voltage electrode.

[Drawings]
[Fig. 1]

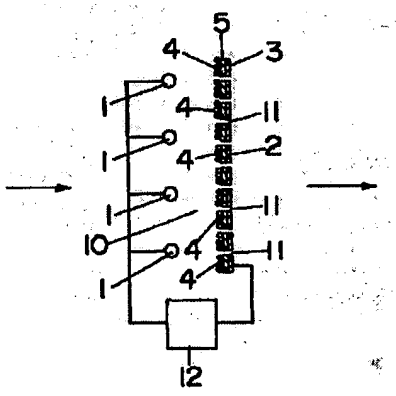


1 放電極
2 面部
3 対極
4 吸着材
10 ガス分解部

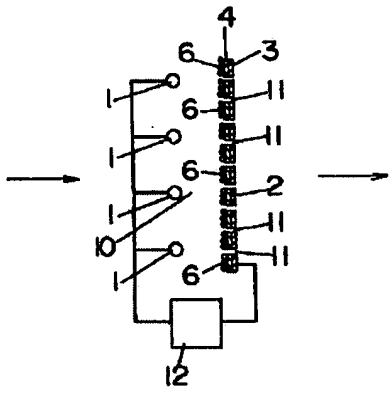
[Fig. 2]



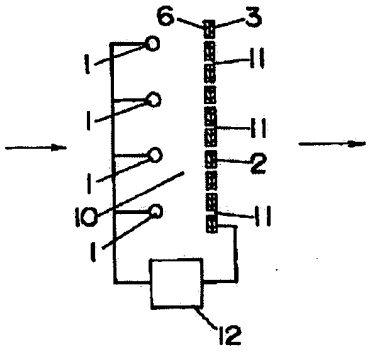
[Fig. 3]



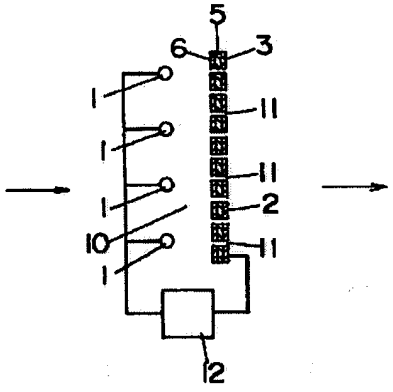
[Fig. 4]



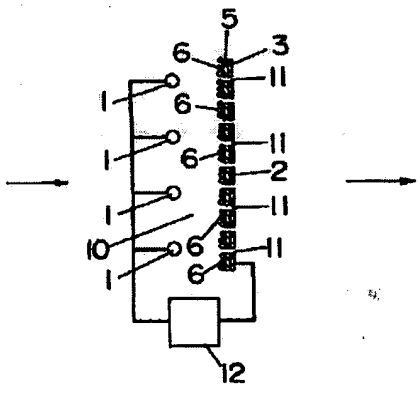
[Fig. 5]



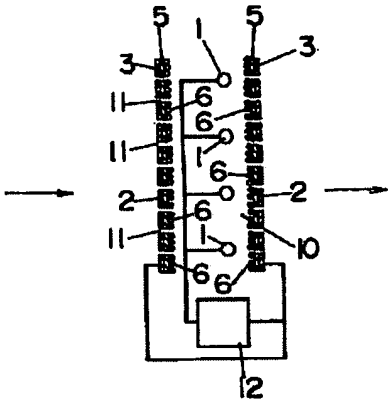
[Fig. 6]



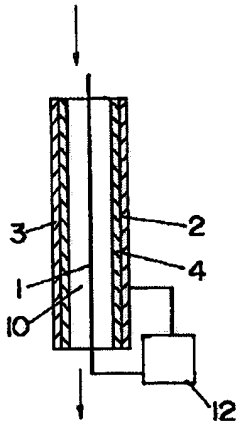
[Fig. 7]



[Fig. 8]



[Fig. 9]



[Fig. 10]